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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/089,312	06/02/1998	STEWART FINDLATER	CISCP035	2703

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[REDACTED] EXAMINER

HOM, SHICK C

[REDACTED] ART UNIT [REDACTED] PAPER NUMBER

2661

DATE MAILED: 06/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/089,312	FINDLATER ET AL.
	Examiner Shick C Hom	Art Unit 2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 22 March 2002.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-18 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-18 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on 21 February 2002 is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ .
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>21</u> .	6) <input type="checkbox"/> Other: _____

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DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 3-22-02 have been fully considered but they are not persuasive.

In page 5 lines 1-9, applicant argued that the cited patent and application did not recite the transmit and receive control lines/signals as now claimed. However, U.S. patent no. 5,953,345 in claim 17 which recite conveying time-division multiplexed signals over a transmit wire and over a receive wire and claims 18 and 19 which recite the transmit wire conveys transmit enable signals, the receive wire conveys receive data valid, collision, jabber, and linktestpass signals clearly anticipate the broader transmit and receive control lines/signals as now argued.

In response to applicant's argument in page 5 line 18 to page 6 line 33 that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., time-division multiplexing is not done on the basis of ports but on the basis of function, i.e. "multiplexing by functions," in which each time slot functions

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differently) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Drawings

2. The drawings submitted with this application were declared informal by the applicant. Accordingly they have not been reviewed by a draftsperson at this time. When formal drawings are submitted, the draftsperson will perform a review.

Direct any inquiries concerning drawing review to the Drawing Review Branch (703) 305-8404.

Specification

3. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or

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improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321© may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claim 16 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-24 of U.S. Patent No. 5,953,345. Although the conflicting claims are not identical, they are not patentably distinct from each other because the application's claim 16 merely broaden the scope of the U.S. Patent No. 5,953,345 claims 17-19 by eliminating the MAC to PHY interface being in a 10Base-T Ethernet device as in claim 17. It has been held that the omission of a element and its function is an obvious expedient if the remaining elements perform the same function as before. *In re Karlson*, 136 USPQ (CCPA). Also note *Ex parte Rainu*, 168 USPQ 375 (Bd. App. 1969); omission of a reference element whose function is not needed would be obvious to one skilled in the art.

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6. Claims 1 and 15 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 21, 26, and 31 of U.S.

Application No. 09/088,956. Although the conflicting claims are not identical, they are not patentably distinct from each other because the application's claim 15 merely broaden the scope of the U.S. Application No. 09/088,956 claim 31 by eliminating the global clock wire for conveying the clock signal and the global synchronization pulse wire for conveying the synchronization pulse signal to the first and second MAC as in claim 31.

Likewise, the application's claim 1 merely broaden the scope of U.S. Application No. 09/088,956 claims 21 and 26 by eliminating the MAC to PHY lines being in a 10Base-T Ethernet device, and the global clock wire for conveying the clock signal and the global synchronization pulse wire for conveying the synchronization pulse signal to the MAC and the PHY. It has been held that the omission of a element and its function is an obvious expedient if the remaining elements perform the same function as before. *In re Karlson*, 136 USPQ (CCPA). Also note *Ex parte Rainu*, 168 USPQ 375 (Bd. App. 1969); omission of a reference element whose function is not needed would be obvious to one skilled in the art.

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Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371[©] of this title before the invention thereof by the applicant for patent.

8. Claim 16 is rejected under 35 U.S.C. 102(e) as being anticipated by Runaldue et al.

Runaldue et al. disclose all the subject matter now claimed. Note Fig. 3 which shows the multiplexer interface between the MAC and PHY including the time-division multiplexed data and control, i.e. clock, lines for receive and transmit clearly anticipate the method of communicating between a MAC and PHY including the multiplexed receive and transmit data and the multiplexed receive and transmit control lines as in claim 16. Col. 4 lines 4-12 which recite the multiplexer being controlled by a system clock clearly anticipate the common clock as in claim 16. Col. 2 line 48 to col. 3 lines 15-20 which recite the TXCLK signal for

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synchronized to the network rate and the RXCLK signal which provides the reference clock used to latch incoming network data whereby the RXCLK signal is valid when the RXDATA is valid and col. 4 lines 26-33 which recite the RXDATAVALID signal that is used to determine when data on the RXDATA bus is valid clearly anticipate the receive line synchronization bit as in claims 2-3, the transmit line synchronization bit as in claims 7-8, and the receive data valid bit as in claim 4. Col. 1 line 65 to col. 2 line 10 which recite a method of indicating the speed of the line having the interfaces which provides connections between respective MAC and PHY devices whereby the interfaces operates at a first data rate having the pad member coupled to the multiplexer receiving multiplexed signals from the interfaces wherein the multiplexer operates at a second data rate being a multiple of the first data rate and col. 2 lines 48-64 which recite the using the TXCLK clock signal being synchronized to the network rate clearly anticipate the step of indicating the speed of the line as in claims 11 and 12.

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Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(a) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 1-15 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Runaldue et al. as applied to claim 16 above, and further in view of Chow et al.

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Runaldue et al. did not teach the 100 MHZ receive and transmit data lines as in claim 1, the interface being between a first MAC and a second MAC as in claim 15, a receive and transmit error bit as in claims 5, 10, 17, 18 and a carrier sense bit as in claims 6, 17. Runaldue et al. did not teach using an elasticity buffer that is long enough and at least 27 bits long to buffer data from a data source as in claims 13-14. Runaldue et al. did not teach a transmit enable bit as in claims 9, 18.

Chow et al. teach that it is known to provide interface between media access control MAC ports 60 and MAC ports 62 whereby each of the MAC ports 60, 62 has a receive first-in-first-out FIFO buffer and transmit FIFO buffer as shown in Fig. 3A in the field of digital and multiplex communications for the purpose of more robust method of sending and receiving data packets which clearly anticipate the interface being between a first MAC and a second MAC as in claim 15 and the elasticity buffer that is long enough to buffer data from a data source as in claim 14; further, col. 6 lines 9-27 which recite the PCI interface being a 32-bit clearly anticipate the buffer being least 27 bits long as in claim 13. Col. 7 lines 23-32 which recite generating and outputting the carrier sense signal to the MAC clearly anticipate the carrier sense bit as in claims 6, 17.

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Col. 1 line 56 to col. 2 line 6 which recite the TXC line being a free running clock signal provided by the MAC to strobe out serial NRZ (Non-Return to Zero) transmit data wherein the TXE line indicates valid transmit data from the MAC and frames an entire packet and the CRS line for indicating valid data on the RXD line clearly anticipate the receive and transmit error bit as in claims 5, 10, 17, and 18. Col. 6 lines 28-62 which recite the interface receiving the transmit enable TXE signal clearly anticipate the transmit enable bit as in claims 9, 18.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the 100 MHZ receive and transmit data lines, the interface being between a first MAC and a second MAC, the receive and transmit error bit, the carrier sense bit, using an elasticity buffer that is long enough and at least 27 bits long to buffer data from a data source, and the transmit enable bit as taught in Chow et al. to the system of Runaldue et al. because Chow et al. teach the desirable advantage of providing a more robust method of sending and receiving data packets and said more robust packet switching being desirable to achieve efficient system operation in Runaldue et al.

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Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. **Any response to this final action should be mailed to:**

Box AF

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

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(703) 872-9314, (for formal communications; please mark "EXPEDITED PROCEDURE")

Or:

(for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shick Hom whose telephone number is (703) 305-4742.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-4750.



DANG TON
PRIMARY EXAMINER

SH

June 12, 2002